IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 1-3. These sheets, which include Figs. 1-3, replace the original sheets including Figs. 1-3.

Attachment: 2 Replacement Sheets

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the present amendment and in light of the following discussion, is respectfully requested.

Claims 10-16 and 18-27 are pending. In the present amendment, Claims 10 and 18 are currently amended, Claim 17 is canceled without prejudice or disclaimer, and new Claims 19-27 are added. Support for the present amendment can be found in the original specification, for example, at page 11, line 17 to page 12, line 21, at page 15, lines 1-13, at page 16, line 1 to page 17, line 2, in Figures 1-3, and in Claim 17. Thus, it is respectfully submitted that no new matter is added.

In the outstanding Office Action, the drawings were objected to; Claim 10 was rejected under 35 U.S.C. § 112, second paragraph; Claims 10, 13, and 15 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi (U.S. Publication No. 2001/0008718) in view of Jungreis (U.S. Publication No. 2003/0113595); Claims 11, 12, and 16 were rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi and Jungreis, and further in view of Seto (WO Publication No. 94/21481); Claim 14 was rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi and Jungreis, and further in view of Singh et al. (U.S. Patent No. 6,376,116, hereinafter "Singh"); Claim 17 was rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi and Jungreis, and further in view of Yakes et al. (U.S. Patent No. 6,885,920, hereinafter "Yakes"); and Claim 18 was rejected under 35 U.S.C. § 103(a) as unpatentable over Kobayashi in view of Seto.

In response to the objection to the drawings, the drawings are hereby amended to replace "O" with "Y," as suggested in the Office Action. Additionally, the subscripts for the powers shown in the diagram of Figure 3 are replaced with their English language equivalents where necessary. Specifically, P_{pile} is replaced with P_{cell} and P_{frein} is replaced with P_{brake}, as suggested in the first and third paragraphs on page 13 of the original

specification. Additionally, the subscripts with accents in Figure 3 were replaced by subscripts without accents. However, the subscripts "mot," "eq," and "rec" are not changed as these already represent English terms. If any further amendments to the subscripts are necessary, Applicants welcome any input the Examiner may have regarding how to further amend the subscripts. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

The specification is hereby amended to be consistent with the changes made to the drawings and to add section headings thereto. It is respectfully submitted that no new matter is added.

In response to the rejection of Claim 10 under 35 U.S.C. § 112, second paragraph, Claim 10 is hereby amended to clarify that a method of recovering electric energy is being claimed in Claim 10. Thus, it is believed that all pending claims are definite and no further rejection on that basis is anticipated. However, if Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work with the Examiner in a joint effort to derive mutually acceptable language.

Turning now to the rejections under 35 U.S.C. § 103(a), Applicants respectfully request reconsideration of these rejections and traverse these rejections, as discussed below.

Independent Claim 10 is hereby amended to include the subject matter previously recited in Claim 17. Additionally, Claim 10 is further amended to clarify that the pump which stores the mechanical energy is a pump that drives at least one piece of the electrical equipment that is driven by the electric motor when the energy supplied by the excess electric power is insufficient. As explained in the original specification, for example, in the second and third paragraphs on page 12, such a pump can be a hydraulic electropump group that includes a pressure accumulator in which the mechanical energy is stored. Further, the hydraulic electropump group is part of an assisted steering system. Alternatively, the pump

can be a vacuum pump including a vacuum accumulated that stores mechanical energy and that is part of a braking assistance system. It is respectfully submitted that the cited combination of references does not disclose or suggest every feature recited in amended Claim 10.

As discussed above, Claim 10 is hereby amended to include the subject matter from Claim 17. The Office Action, on pages 12 and 13, cites the combination of Kobayashi and Jungreis, and further in view of Yakes to reject Claim 17. Specifically, the Office Action acknowledges that "Kobayashi and Jungreis do not disclose energy storage in the form of a food container in which the energy is stored in a form of mechanical energy by a pump that modifies fluid pressure." Instead, the Office Action relies on Yakes to cure this deficiency of Kobayashi and Jungreis.

Yakes describes an electric traction vehicle 1910 that uses electricity in some form or another to provide all or part of the propulsion power of the vehicle.[1] Further, Yakes describes that the control system for the electric traction vehicle 1910 includes a AC power bus assembly 1942 and a power storage unit 1922 connected to the AC power bus assembly 1942.[2] The power storage unit 1922 described in Yakes can include an energy storage device 1926 such as a hydraulic accumulator.[3] Yakes also describes that the storage device 1926, such as the hydraulic accumulator, is used to provide additional horsepower in the form of a short-term power boost to the motor driving the vehicle 1910.[4]

However, it is respectfully submitted that Kobayashi and Jungreis, and further in view of Yakes does not disclose or suggest "d) storing which is activated when the instantaneous storage capacity is higher than or equal to the excess electric power, during which the fuel cell is supplied by all of the excess fuel and during which the excess electric power is stored

[1] See Yakes, at column 48, lines 31-35.
[2] See Yakes, at column 52, lines 7-10 and in Figure 25.
[3] See Yakes, at column 52, lines 13-15.
[4] See Yakes, at column 52, lines 23-38.

in the energy storage, wherein the energy storage includes a fluid container in which the energy is stored in a form of mechanical energy by a pump that modifies fluid pressure and the pump drives at least one piece of the electrical equipment that is driven by the electric motor when the energy supplied by the excess electric power is insufficient," as recited in amended Claim 10.

Instead, as discussed above, the pressure accumulator described in Yakes is used to provide part of the propulsion power, along with the motor, for the vehicle. Thus, the pressure accumulator described in Yakes is not a pump that drives at least one piece of the electrical equipment that is driven by the electric motor of the vehicle when the energy supplied by the excess electric power is insufficient. On the contrary, the pressure accumulator described in Yakes is similar to a battery that powers the motor of an electric vehicle. Thus, the cited combination of Kobayashi and Jungreis, and further in view of Yakes does not describe storing the mechanical energy in such a manner that the mechanical energy can later be used to decrease the load placed on the motor of the vehicle by at least one piece of electrical equipment.

Additionally, it is respectfully submitted that none of the remaining secondary references (Seto and Singh) cure the above-noted deficiencies of the combination of Kobayashi and Jungreis, and further in view of Yakes. Although Seto describes using power from regenerative braking to increase the efficiency of an air-conditioner, such efficiency is increased by heat transfer, and thus is not stored in a form of mechanical energy by modifying fluid pressure of a pump.

Therefore, it is respectfully submitted that Claim 10 patentably defines over the cited references either alone, or in any combination thereof. Thus, it is respectfully requested that the rejections of Claim 10, and all claims dependent thereon, be withdrawn.

Independent Claim 18 recites, in part, an electric energy recovery system comprising a fuel cell containing an energy storage that is configured to store excess electric power "the energy storage includes a fluid container in which the excess electric power is stored in a form of mechanical energy by a pump that modifies fluid pressure and the pump drives at least one piece of the electrical equipment that is driven by the electric motor when the energy supplied by the excess electric power is insufficient."

Accordingly, in view of the above discussion of the references, it is respectfully submitted that none of the cited references, either alone or in any combination thereof, disclose or suggest every feature recited in amended Claim 18. Accordingly, it is respectfully requested that the rejection of Claim 18 be withdrawn.

New Claims 19-27 are hereby added. Support for new Claim 19-27 can be found in the original specification, for example, at page 11, line 17 to page 12, line 21, at page 15, lines 1-13, at page 16, line 1 to page 17, line 2, in Figures 1-3, and in Claim 17. Thus, it is respectfully submitted that no new matter is added. It is noted that new Claims 19-27 are dependent on independent Claims 10 and 18. Thus, new Claims 19-27 are believed to be patentable for at least the reasons discussed above with respect to Claims 10 and 18.

New Claim 19 recites that "the pump is a vacuum pump configured to drive the at least one piece of electrical equipment and the at least one piece of electrical equipment is a braking assistance system." As discussed above, the hydraulic accumulator described in Yakes is configured to provide extra power to the engine and thus does not drive the braking assistance system. Accordingly, it is respectfully submitted that Claim 19, and Claim 23 which recites similar features to Claim 19, further patentably define over the cited references.

Claim 20 recites that "the pump is an electropump configured to drive the at least one piece of electrical equipment and the at least one piece of electrical equipment is an assisted steering system." In view of the above discussion of Yakes, it is respectfully submitted that

Claim 20, and Claim 24 which recites similar features to Claim 20, further patentably define over the cited references.

New Claim 21 recites that "the storing includes adding the excess electric power to the heat accumulator when recuperation braking is not activated." Additionally, new Claim 22 recites that "the excess power stored in the heat accumulator is energy supplied only by the fuel cell."

As discussed above, Seto describes that excess regenerative power is utilized to increase the efficiency of an air-conditioner. Seto also describes that the excess regenerative power is only supplied to the air-conditioning system when the storage battery 11 is fully charged and during the time of regenerative braking.[5] Thus, Seto teaches away from adding the excess power to the AC system when the regenerative braking is not activated. Further, Seto does not describe supplying excess power to the AC system from a fuel cell as Seto is only concerned with regenerative braking. Accordingly, as Seto is the only reference that describes powering the air-conditioning system, it is respectfully submitted that the cited combination of references does not disclose or suggest providing power to an air-conditioning system when regenerative braking is not being activated or by power from a fuel cell. Therefore, it is respectfully submitted that Claims 21 and 22, and Claims 26 and 27 which recite similar features thereto, patentably define over the cited references.

[5] See Seto, at column 7, line 57 to column 8, line 12 and at column 8, lines 38-56.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. A Notice of Allowance is earnestly solicited.

Respectfully submitted,

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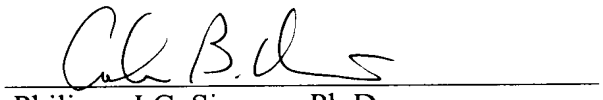

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